Sphinkterinsuffizienz: Zelltherapie als neuer Hoffnungsträger

INSELSPITAL
UNIVERSITÄTSSPITAL BERN
HOPITAL UNIVERSITAIRE DE BERNE
BERN UNIVERSITY HOSPITAL

Interdisziplinäre Viszerale Chirurgie und Medizin

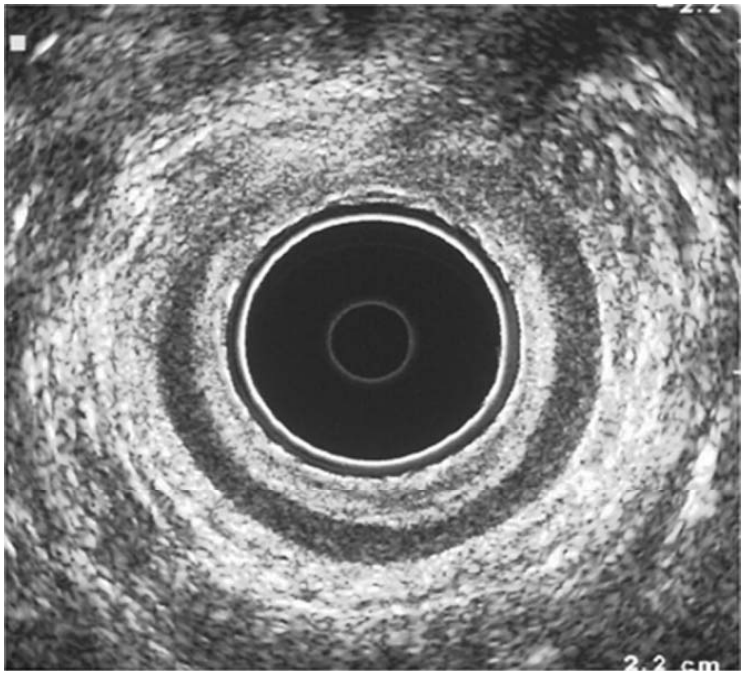
Oktober 2012

Lukas Brügger

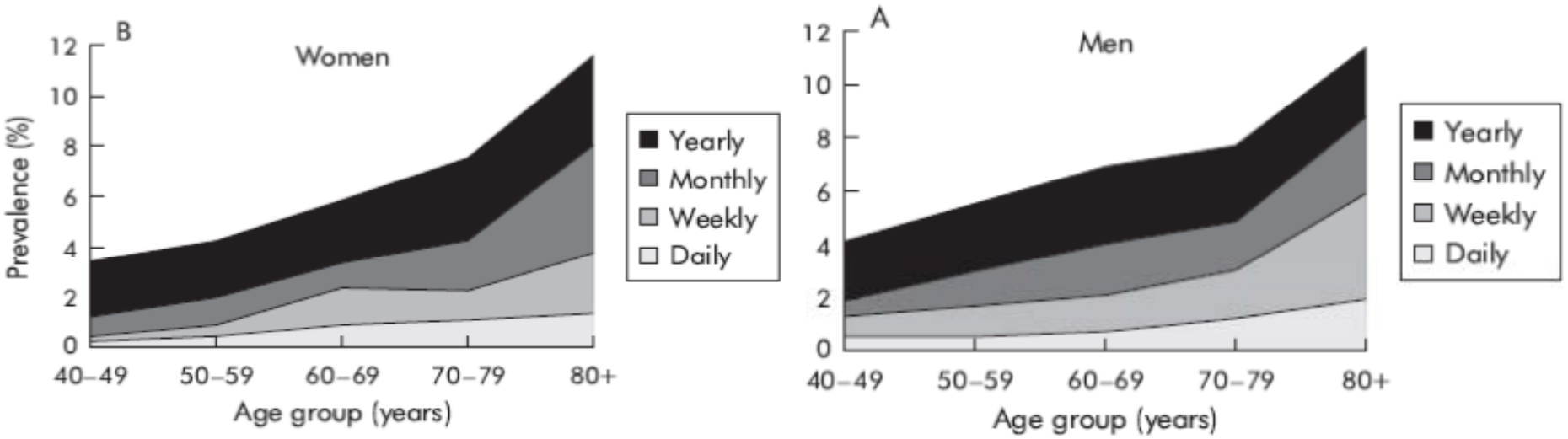
u^b

b UNIVERSITÄT BERN

UVCM



Prevalence of incontinence



Perry S, Gut 2002
Teunissen TA, Int Urogynecol J Pelvic Floor Dysfunct 2004
Johanson JF, Am J Gastroenterol 1996

Economic consequences

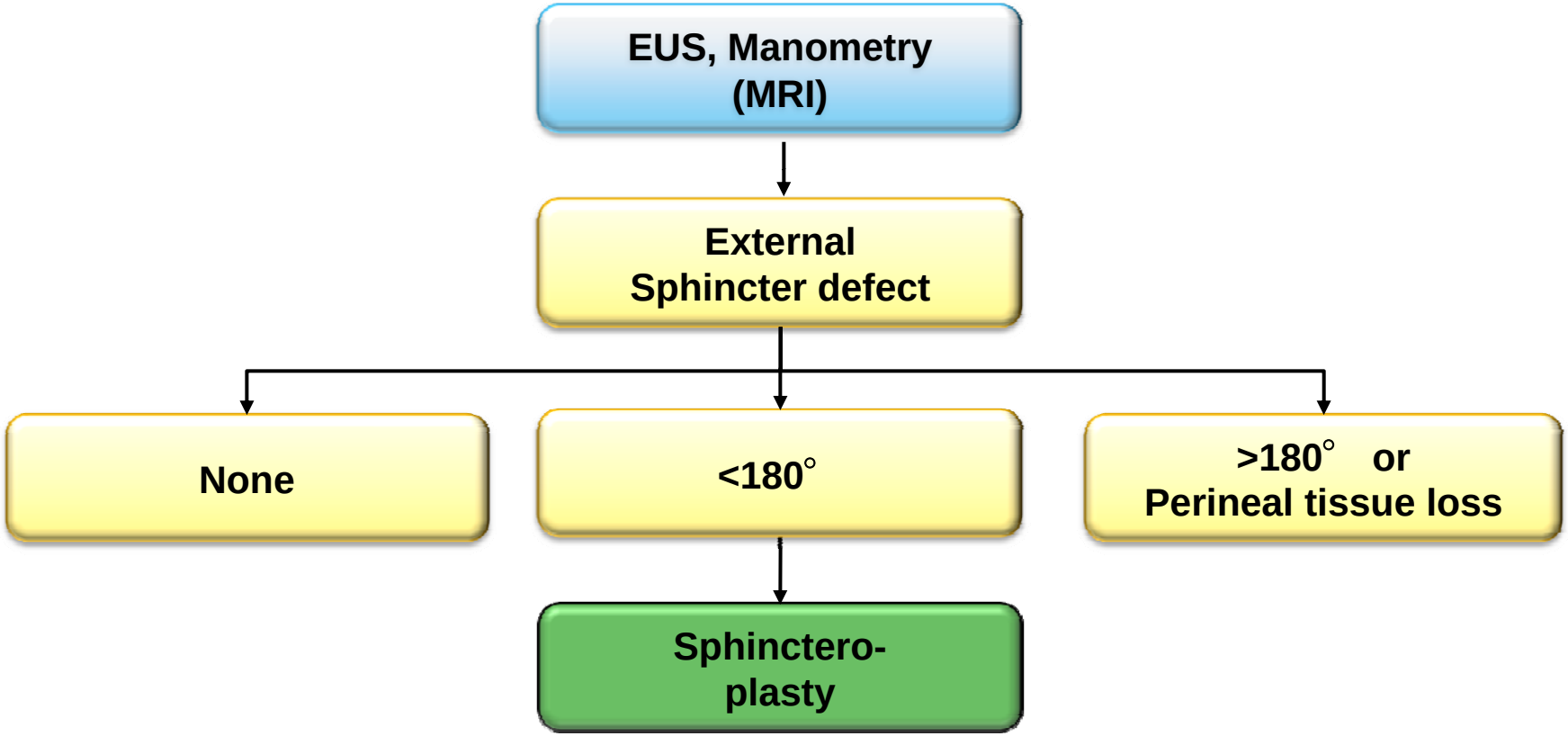
Direct costs in UK

£8.5 million/year

CH: CHF 12 Million/year!

Integrated continence service 2000

International Consultation on Incontinence 2008



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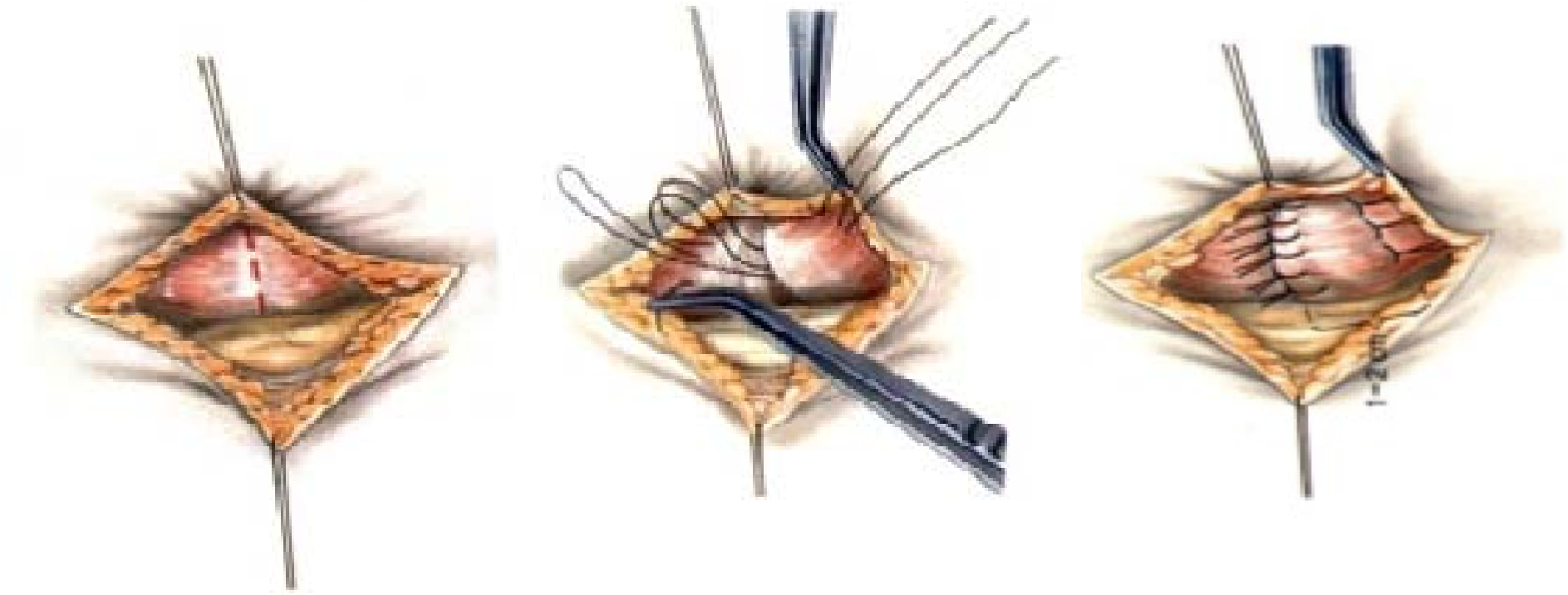
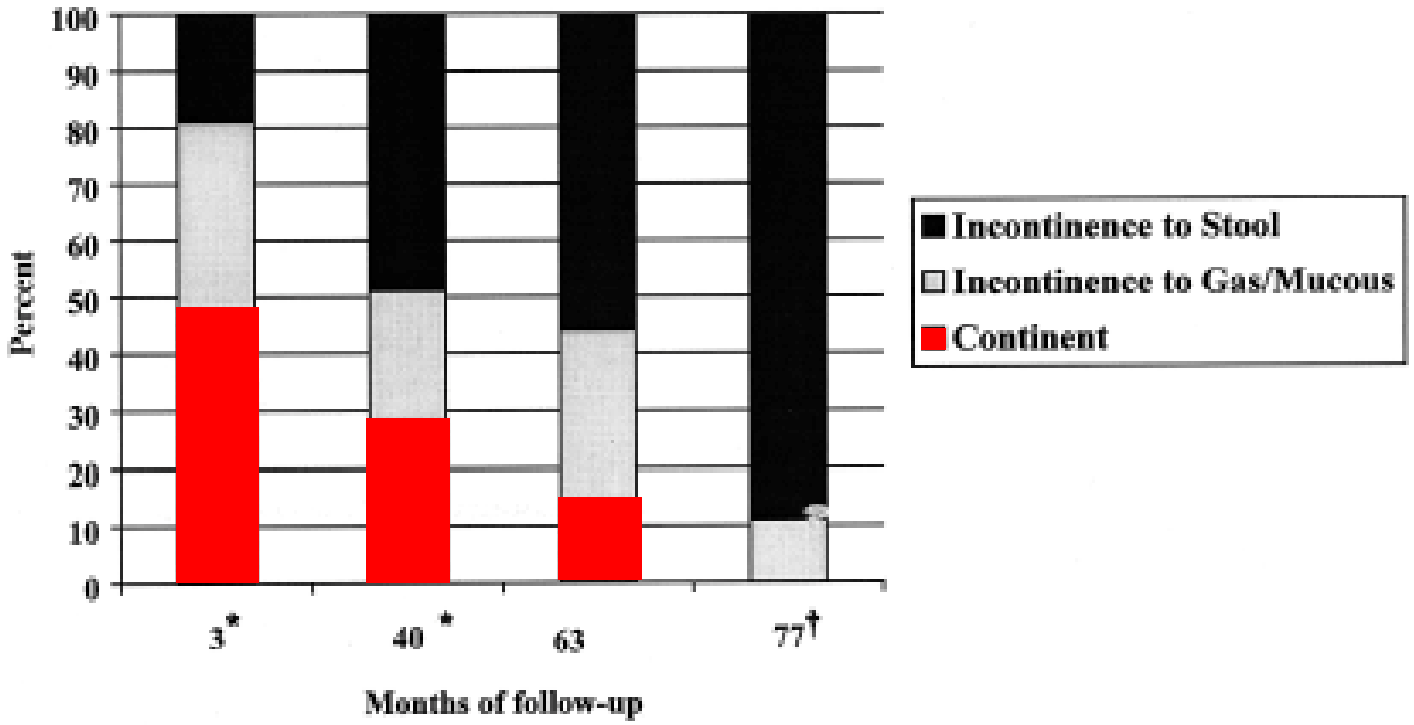
Sphinceroplasty

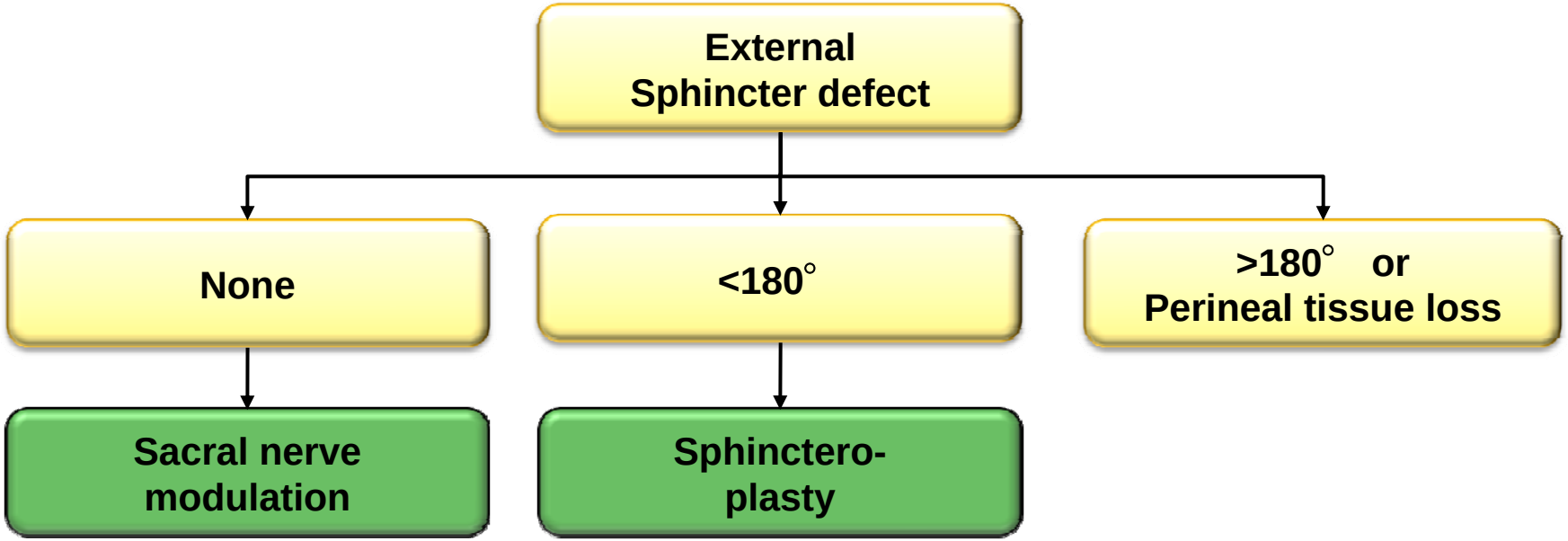


Sphincteroplasty: longtime follow up

N=69



Halverson AL. Dis Colon Rectum 2002



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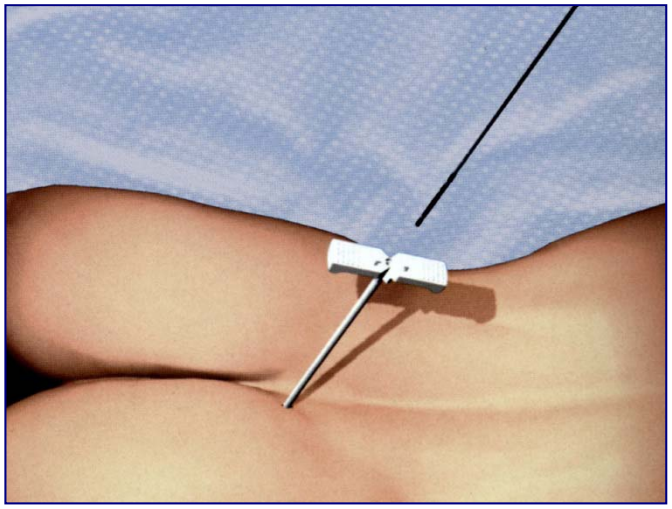
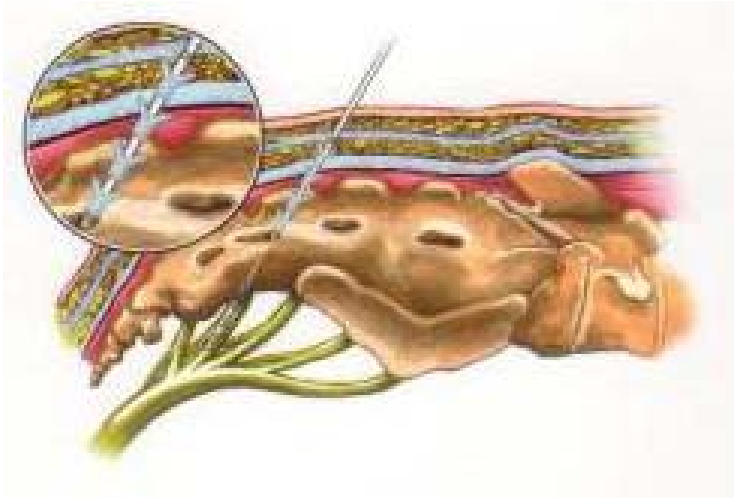
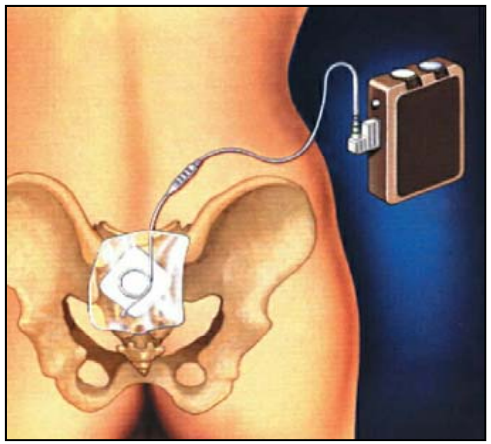
Sacral nerve modulation (SNS)



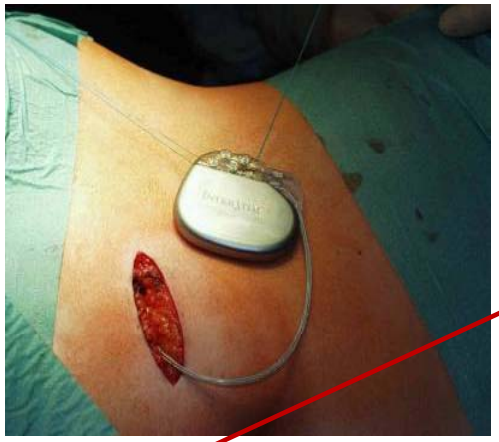


Stage I



Evaluation
2-3 weeks

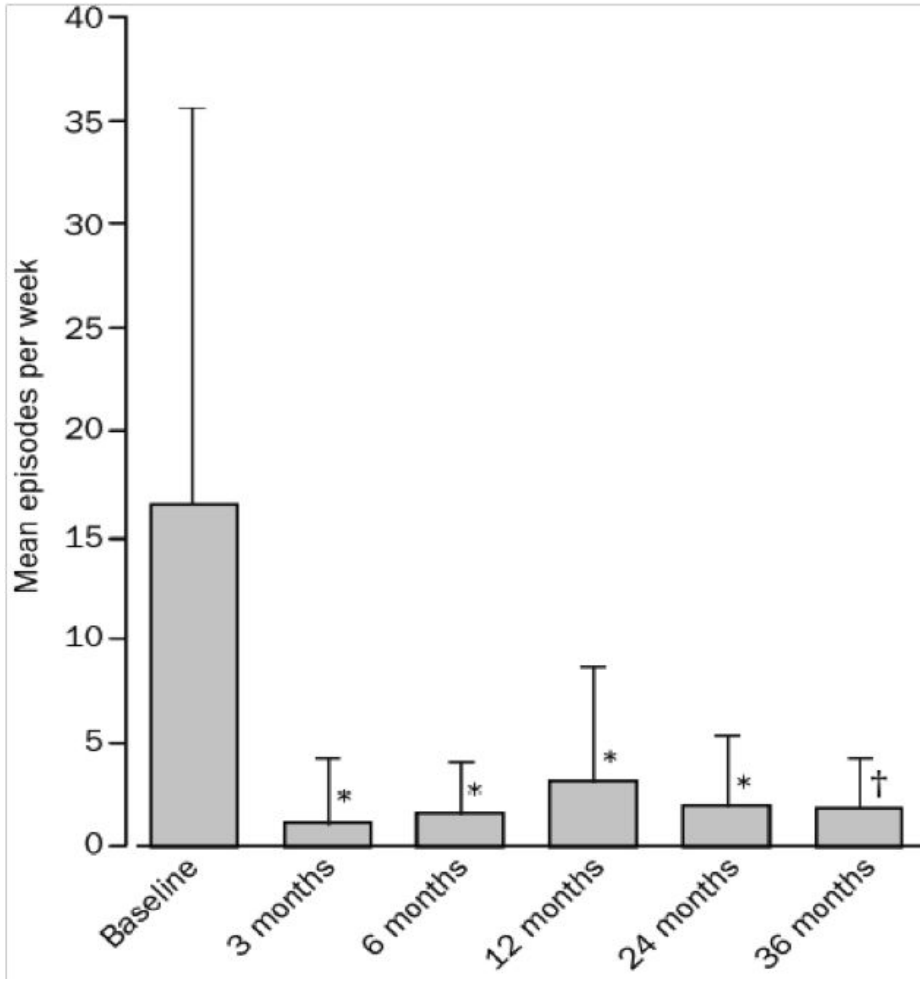
Stage II



Follow up
1, 6, 12 weeks...

THE LANCET

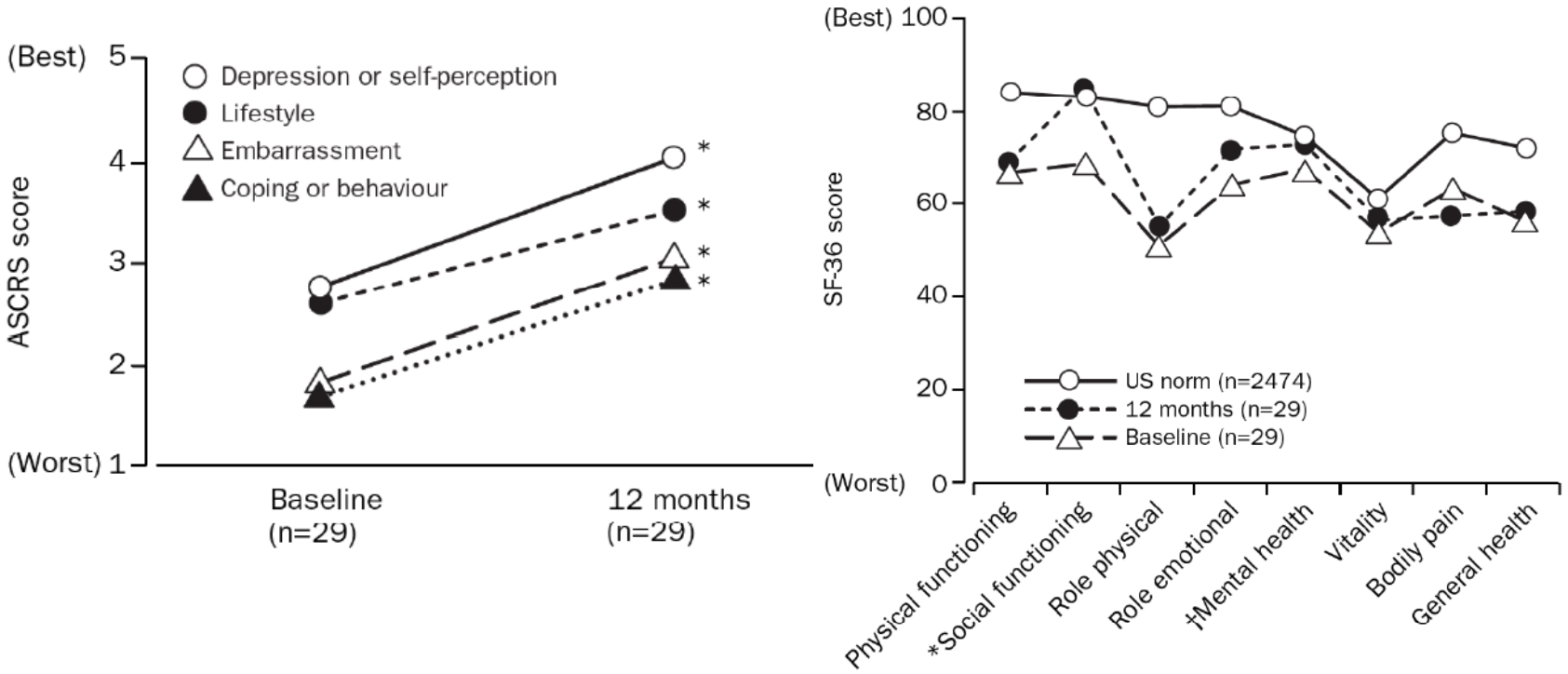
Sacral spinal nerve stimulation for faecal incontinence: multicenter study



n=37
(implantation, n=34)

Matzel KE. Lancet 2004

Quality of life



Matzel KE. Lancet 2004

Efficacy of SNS

Author	Year	No. of temporary	Success n (%)	No. of permanent	Success n (%)	Continent n (%)	ITT success n (%)	Follow-up median (months)	ITT continent n (%)	Delphi score
Ripetti et al[14]	2002	21	4 (19)	4	4 (100)	0 (0)	4 (19)[a]	15	0 (0)	2
Rasmussen et al[20]	2004	45	37 (82)	37	32 (86)	n/a	32 (71)[a]	6	n/a	1
Conaghan et al[21]	2005	5	3 (60)	3	3 (100)	2 (67%)	3 (67)[a]	n/a	2 (40)	0
Faucheron et al[22]	2006	40	29 (73)	29	24 (83)	n/a	24 (60)[a]	6	n/a	0
Gourcerol et al[23]	2007	61	35 (57)	33	20 (61)	6 (18)	20 (33)[a]	12	6 (10)	2
Melenhorst et al[24]	2007	134	100 (75)	100	79 (79)	n/a	79 (59)[a]	26	n/a	2
Hetzer et al[25]	2007	44	37 (84)	37	34 (92)	n/a	34 (77)	13	n/a	3
Holzer et al[26]	2007	36	29 (81)	29	28 (97)	n/a	28 (78)[a]	35	n/a	2
Dudding et al[27]	2008	70	61 (87)	51	41 (80)	19 (37)	41 (58)[a]	24	19 (27)	0
Gstaltner et al[28]	2008	11	5 (45)	5	5 (100)	4 (80)	5 (45)[a]	n/a	4 (36)	2
Muñoz-Duyos et al[29]	2008	43	29 (67)	29	25 (86)	14 (48)	25 (58)[a]	35	14 (32)	2
Tjandra et al[30]	2008	60	54 (90)	53	38 (72)	22 (42)	38 (63)	12	22 (37)	2
Vitton et al[31]	2008	5	5 (100)	5	5 (100)	n/a	5 (100)	14	n/a	3
Roman et al[32]	2008	18	18 (100)	18	14 (78)	n/a	14 (78)[a]	3	n/a	1
Boyle et al[33]	2009	15	13 (87)	13	10 (77)	6 (40)	10 (66)	n/a	6 (40)	3
Altomare et al[34]	2009	94	60 (64)	60	37 (61)	9 (15)	37 (39)[a]	74	9 (10)	0
Vallet et al[35]	2010	45	32 (71)	32	23 (72)	9 (28)	23 (51)	44	9 (20)	3
Michelsen et al[36]	2010	167	132 (79)	126	91 (72)	n/a	91 (54)	24	n/a	1
Wexner et al[37]	2010	133	120 (90)	106	88 (83)	43 (41)	88 (66)	12	43 (32)	3

SNS = sacral nerve stimulation; ITT = intention to treat; n/a = not available.
[a]Denotes studies where ITT was calculated from presented data.

83(61-100)%

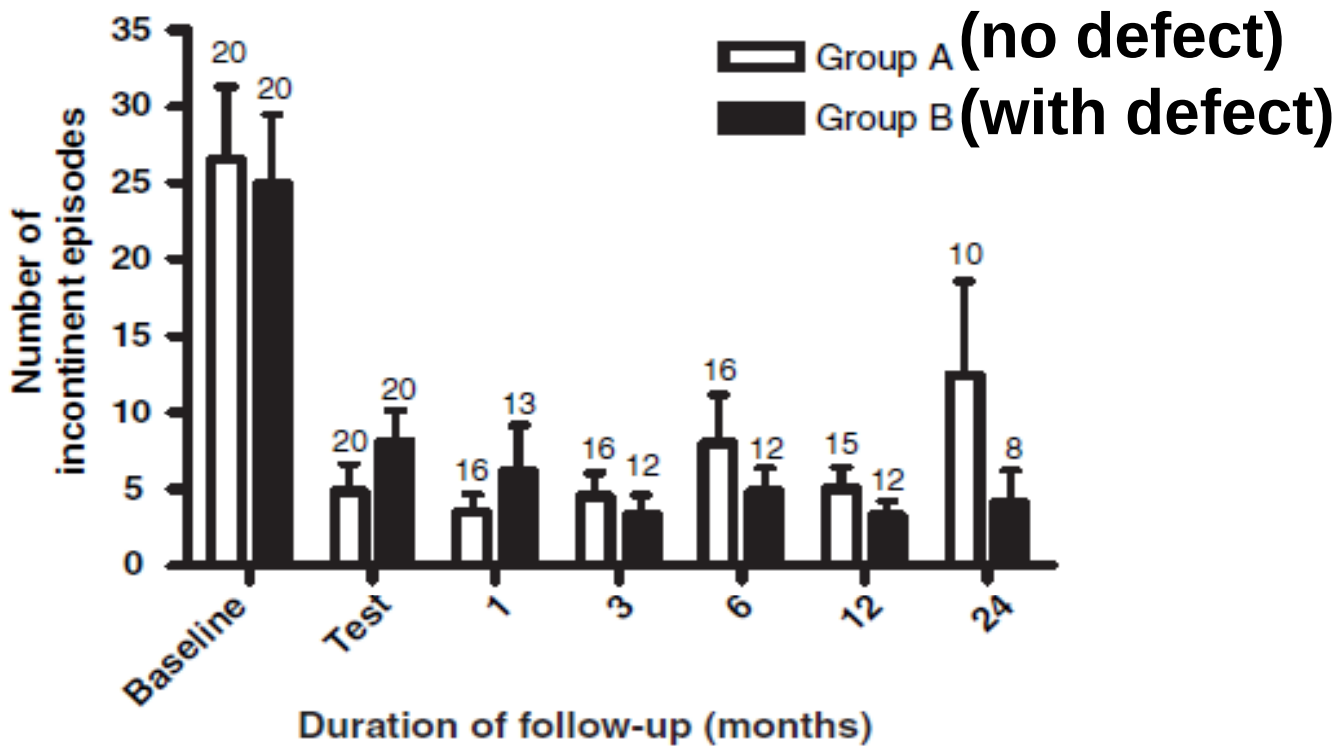
40(0-80)%

60(19-100)%

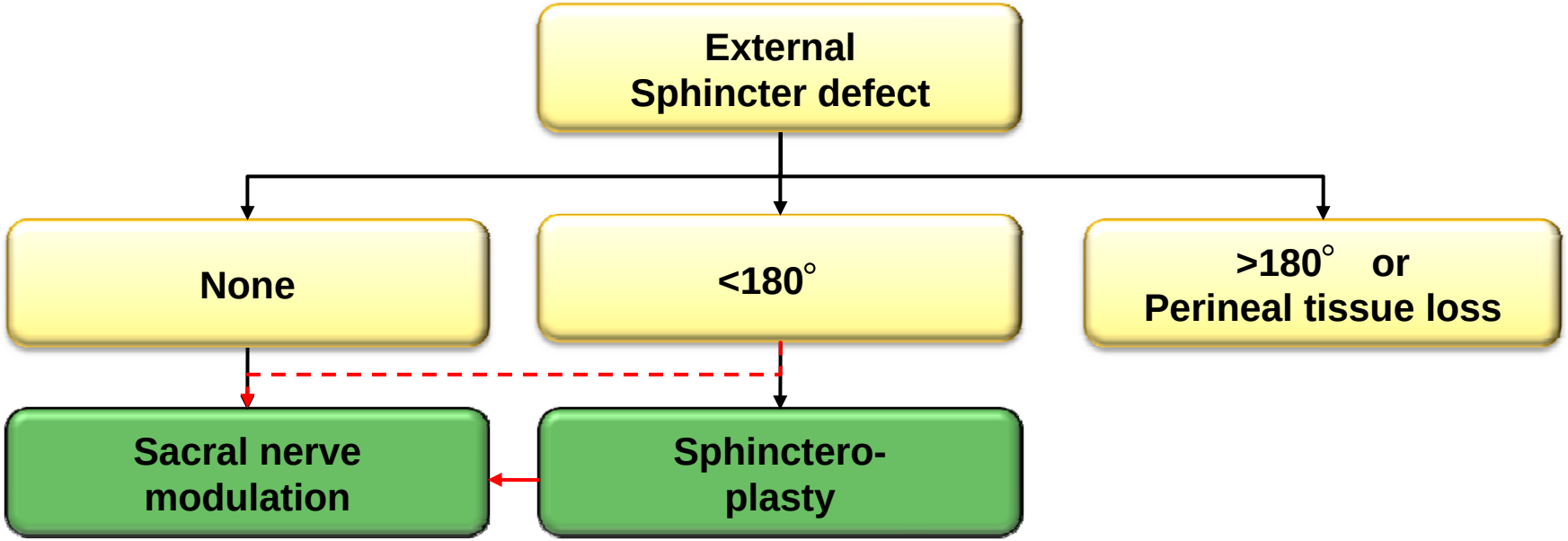
32(0-40)%

Boyle DCR 2011

Is a morphologically intact sphincter necessary?



Melenhorst J. Colorectal Dis 2007



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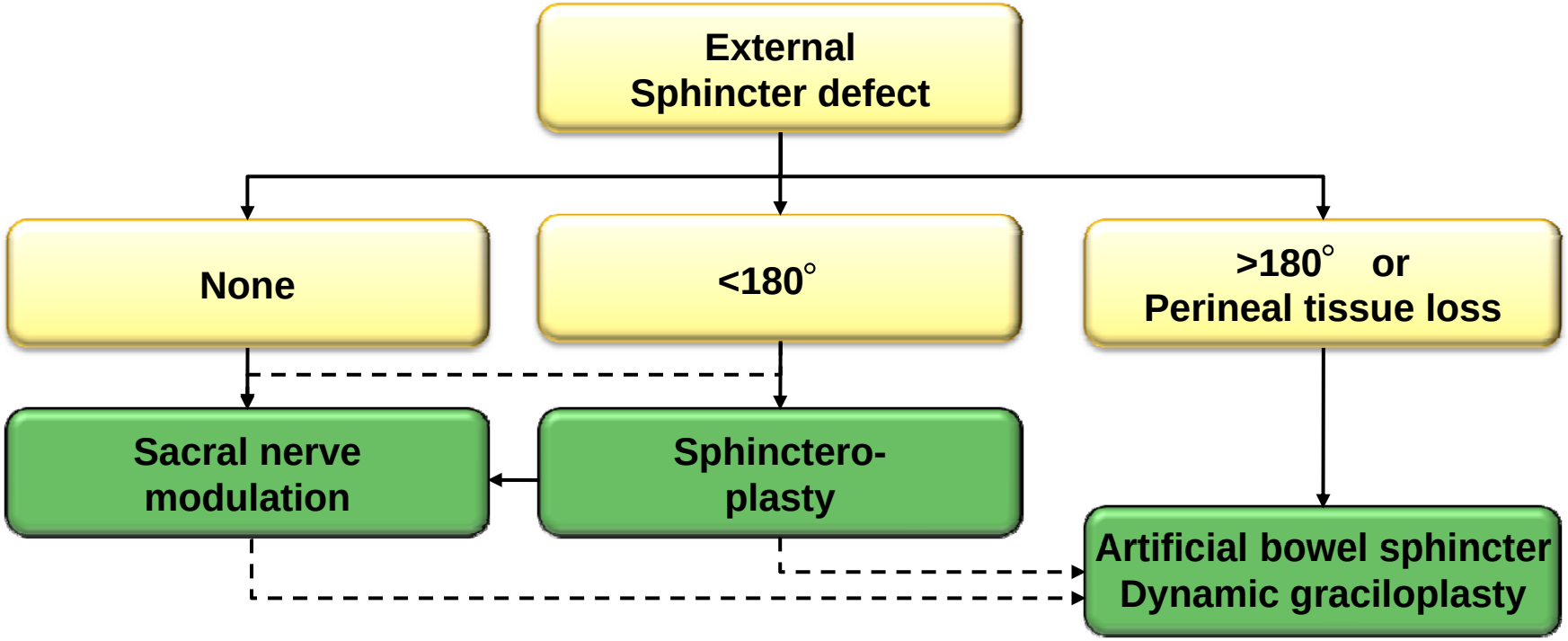

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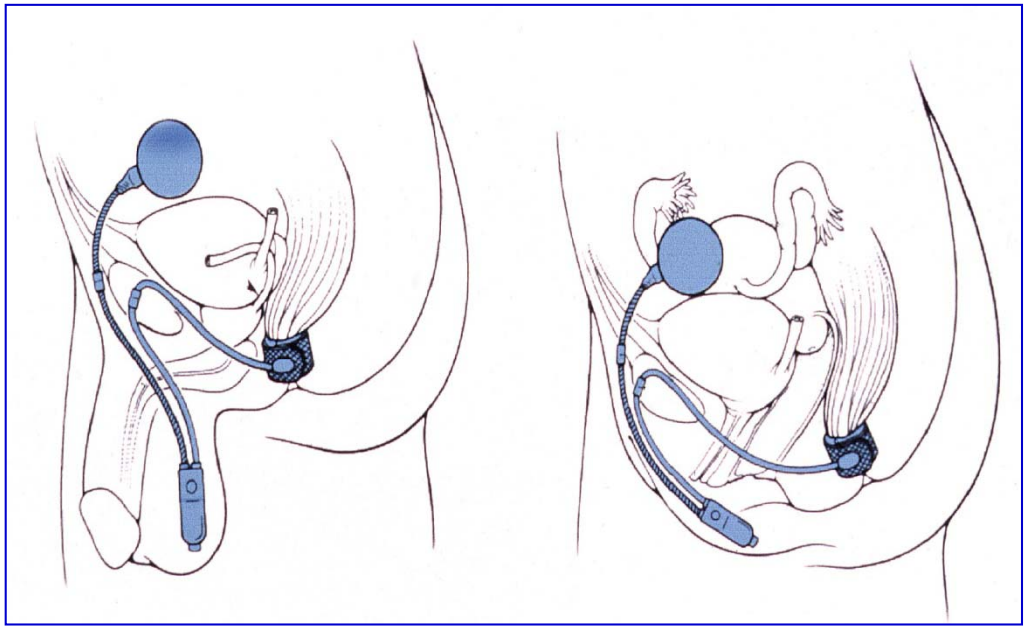
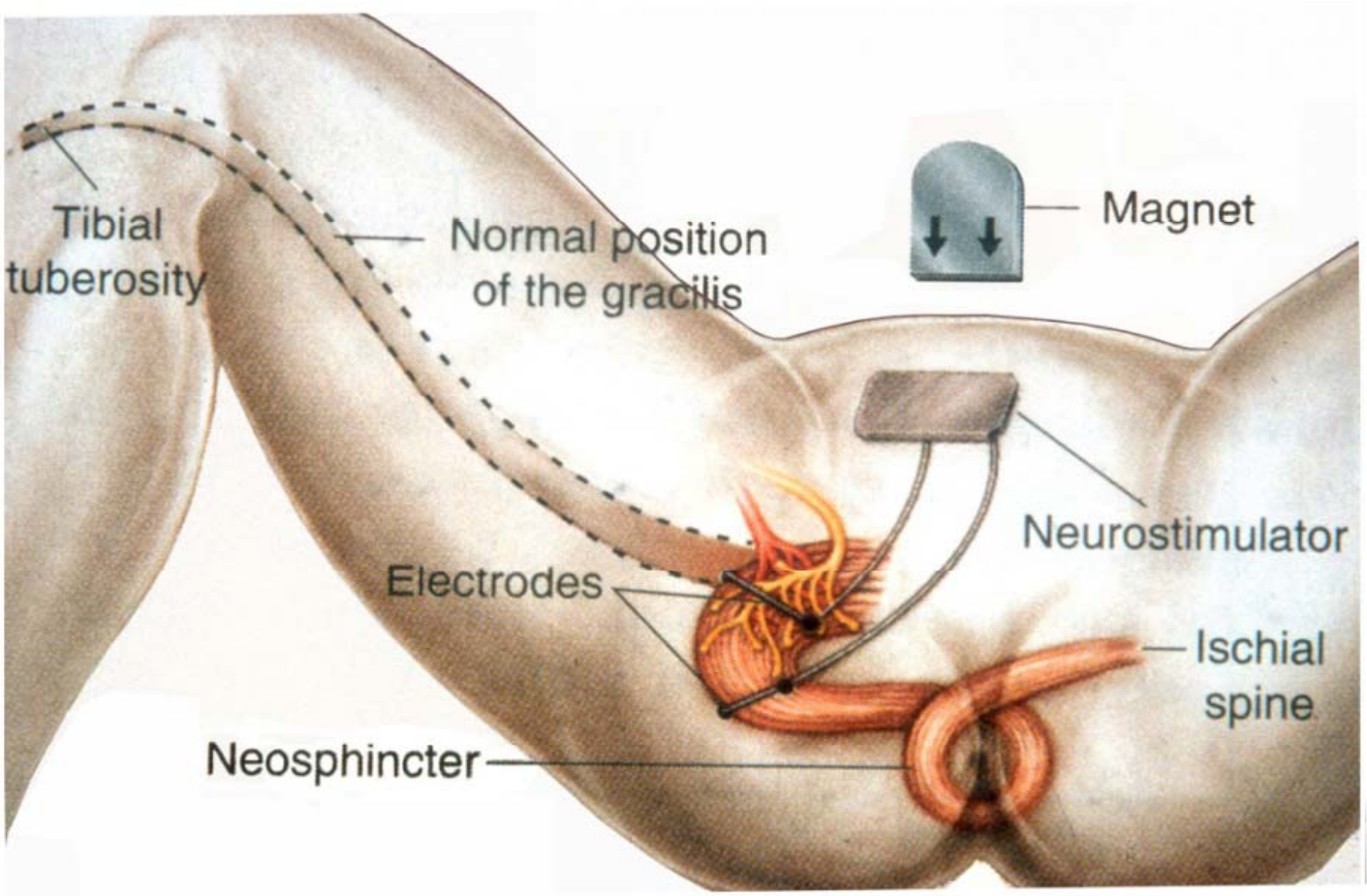
Acticon™ Neosphincter*



Scott Urology 1973

Dynamic graciloplasty (DGP)



Acticon™ Neosphincter: Results

Table 2. Summary of raw data from the 20 most recent relevant studies on artificial bowel sphincter (ABS) (March 2005)

First author[Ref.]	Year	No. of patients	Mean age (years)	Follow-up (years)	Success rate	Surgical revisions	Explantations (total)	Complications (total)	Level of evidence
Da Silva[a20]	2004	11	25.3	1.7	8	1	0	5	III
Altomare[37]	2004	28	58.0	4.2	6	14	11	47	IV
Casal[38]	2004	10	56.0	2.4	2	4	3	7	IV
O'Brien[15]	2004	7	66.0	0.5	6	3	1	5	II
Ortiz[a24]	2003	8	34.4	3.7	2	5	3	10	III
Michot[8]	2003	25	51.1	2.8	12	8	5	10	IV
Parker[16]	2003	47	39.5	5.4	12	25	22	47	IV
Romano[39]	2003	8	52.6	1.4	5	0	0	5	IV
Devesa[40]	2002	53	46.0	2.2	13	16	14	77	IV
Lehur[41]	2002	16	43.0	2.1	11	2	5	7	IV
Wong[14]	2002	115	49.0	1.0	51	81	41	454	IV
Ortiz[12]	2002	22	47.0	2.3	4	6	9	17	IV
Lehur[43]	2000	24	44.0	1.7	18	9	8	14	IV
Dodi[44]	2000	8	n.a.	0.9	6	0	2	4	IV
O'Brien[18]	2000	13	44.0	n.a.	9	4	3	8	IV
Christiansen[45]	1999	17	46.0	7.0	8	6	7	5	IV
Lehur[13]	1998	13	40.0	2.5	4	8	4	9	IV
Vaizey[46]	1998	6	53.0	0.8	2	1	1	9	IV
Gelet[47]	1997	1	61.0	2.0	1	2	0	2	IV
Wong[6]	1996	12	33.0	4.8	9	7	7	4	IV
Total		444	46.8	2.6	189 (42.6%)	202 (45.5%)	146 (33%)	746 (168%)	Lowest level of evidence

n.a., not available
[a] Only ABS arm of patients

Belyaev Surg Today 2006

Dynamic graciloplasty: Results

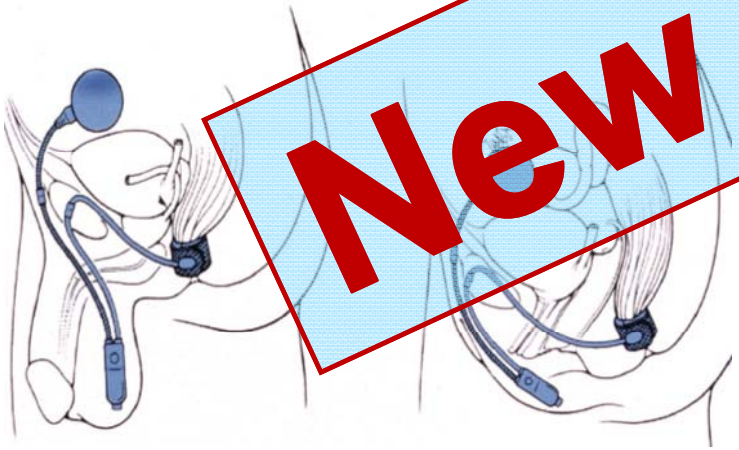
Table 1. Summary of raw data from the 20 most recent relevant studies on dynamic graciloplasty (DGP) (March 2005)

First author[Ref.]	Year	No. of patients	Mean age (years)	Follow-up (years)	Success rate	Surgical revisions	Explantations (total)	Complications (total)	Level of evidence
Koch[19]	2004	28	25.0	4.0	10	15	9	32	IV
Da Silva[a20]	2004	5	25.3	1.7	1	2	0	3	III
Penninckx[12]	2004	60	43.0	4.4	37	61	27	75	IV
Thornton[21]	2004	38	62.0	5.0	2	15	12	17	IV
Violi[22]	2004	23	64.3	4.7	13	12	2	32	IV
Rongen[23]	2003	200	48.0	5.0	145	7	46	138	IV
Ortiz[a24]	2003	8	43.6	3.3	0	5	4	9	III
Wexner[25]	2002	115	50.3	2.0	15	n.a.	66	n.a.	IV
Konsten[26]	2001	81	43.0	n.a.	46	21	35	35	IV
Rullier[27]	2000	15	54.0	2.3	7	8	1	16	IV
Baeten[28]	2000	123	50.0	1.9	55	170	n.a.	189	IV
Mander[29]	1999	64	44.5	1.3	29	10	27	44	IV
Rouanet[30]	1999	9	51.2	2.7	5	3	1	n.a.	IV
Violi[31]	1999	13	61.0	1.5	4	4	n.a.	4	IV
Cavina[32]	1998	31	58.0	3.2	22	7	6	9	IV
Rosen[33]	1998	28	53.5	1.0	19	9	5	14	IV
Geerdes[34]	1997	20	52.0	2.0	8	5	5	n.a.	IV
Altomare[35]	1997	9	45.0	2.0	4	9	4	14	IV
Mander[36]	1996	12	59.3	1.0	0	8	2	12	IV
Baeten[11]	1995	52	44.0	2.1	38	7	7	11	IV
Total		934	48.6	2.7	460 (49.3%)	378[b] (46.2%)	259[c] (32.5%)	654[d] (82.8%)	Lowest level of evidence

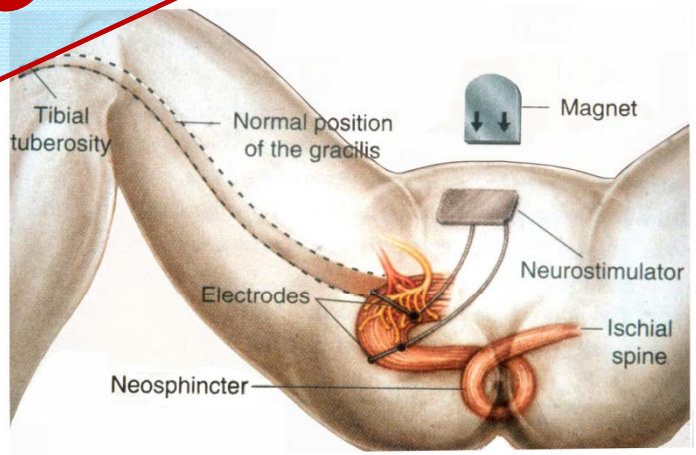
[a] Only DGP arm of patients
[b] 378 revisions in 819 patients
[c] 259 explantations in 798 patients
[d] 654 complications in 790 patients
n.a., not available

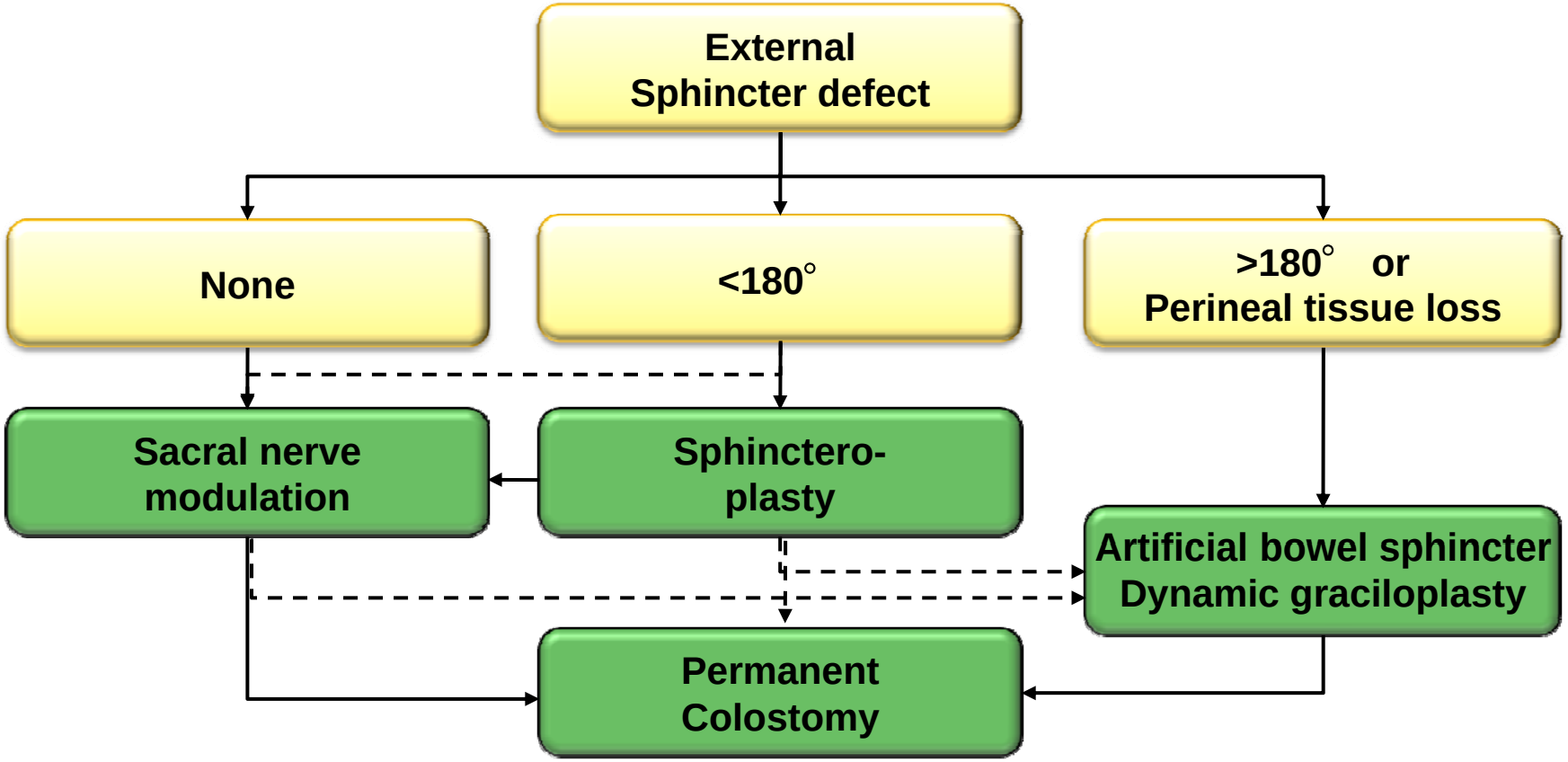
Belyaev Surg Today 2006

Background



New ideas!





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